

The Civilizing Effect of Body Worn Cameras

by

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ABSTRACT

Police departments have perceived improved citizen behavior to be a benefit of body-worn cameras (BWC) since their implementation. Often referred to as a civilizing effect, the idea that citizens will become calmer when they know that they are being recorded by an officer is rooted in deterrence theory and self-awareness theory. Deterrence theory states that people will behave properly when they believe punishment will be swift, certain, and severe, while self-awareness theory states that individuals cognizant of their place in society model their actions based on social norms. The presence of a BWC, though, does not guarantee that the citizen is aware they are being recorded. Citizen awareness of the BWC and activation of the BWC are necessary pre-conditions to improved behavior. Current evidence is mixed regarding if BWCs are a catalyst for improved citizen behavior, which is typically measured through reductions in use of force by police and citizen complaints. Using data collected through systematic social observation during police ride-alongs, the author will seek to determine: 1) How often BWCs are activated in police-citizen encounters, 2) How often citizens are aware of BWCs in these encounters, 3) How often citizen behavior changes positively following BWC awareness, and 4) How often citizen behavior changes independent of BWC awareness. This study expands on current research by examining the civilizing effect of BWCs from a transactional standpoint and how citizen behavior changes within an officer-citizen encounter, rather than using a post-interaction metric such as use of force.

Despite high BWC activation compliance among the officers within this study, no evidence was found for BWCs having a civilizing effect as the pre-condition of citizen

awareness was rarely satisfied. These results could shape policies within departments implementing BWCs hoping to improve officer safety and community relations. Mandatory notification would satisfy the pre-condition of citizen awareness, allowing for the BWC to potentially have a civilizing effect.

KEYWORDS body-worn cameras, civilizing effect, policing, police-citizen encounters

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The Civilizing Effect of Body Worn Cameras

The implementation of body-worn cameras (BWCs) in police departments nationwide has been one approach to try to ease tensions between police officers and citizens. Since the 2014 killing of Michael Brown by Officer Darren Wilson in Ferguson, BWCs have been a focal point of the national criminal justice conversation. Public outcry and demand for increased officer accountability led to former President Obama's 21st Century Task Force on Policing (2015), where BWCs were emphasized as an integral part of policing moving forward. By 2016, nearly half of all law enforcement agencies in the United States had purchased BWCs (Hyland, 2016). Initially intended as a tool for keeping officers accountable for their behavior, BWCs provide several other benefits. BWCs provide evidentiary value in investigations (Goodall, 2007; Katz, Choate, Ready, & Nuño, 2014; Morrow, Katz, & Choate, 2016; Owens, Mann, & McKenna, 2014), they create an environment of contagious accountability within departments (Ariel, Sutherland, Henstock, Young, Drover, Sykes, Megicks, Henderson, 2017), and they have been generally well-received by officers in West Coast departments (Gaub, Todak, & White, 2018; Toronto Police Service, 2016; Jennings, Fridell, & Lynch, 2016; White, Todak, & Gaub, 2018; Fouche, 2014). East Coast departments have seen comparatively slower BWC adoption due to opposition from police unions. While research still has yet to parse out all the benefits and limitations of BWC implementation, widespread investment in the cameras has cemented them as a central component of modern policing (White & Malm, 2020).

Despite this heavy investment in BWCs, research on the effect of BWCs on officer and citizen behavior has been mixed. The most common ways to operationalize behavior change are use of force and citizen complaints, as they were some of the primary concerns that led to widespread BWC investment. While use of force incidents tend to decrease in departments following BWC implementation, some evidence suggests this reduction may be temporary (White, Todak, & Gaub, 2018). Citizen complaints decrease consistently in departments following BWC implementation, though it has yet to be determined if that is due to a change in officer behavior, citizen behavior, or elimination of frivolous complaints (Malm, 2019). One possible explanation for these mixed findings may be citizen awareness of the cameras. Deterrence theory and self-awareness theory provide the basis for this idea. Deterrence theory states that people are deterred from displaying antisocial behaviors when they believe those actions will lead to negative consequences, while self-awareness theory states that individuals can focus on themselves and therefore evaluate themselves based on social norms (Beccaria, 1963; Duval & Wicklund, 1972). Based on these theories, individuals aware of BWC presence should alter their behavior to be more cooperative. This is known as the “civilizing effect”, a theorized benefit of BWC implementation. The final report of the President’s 21st Century Task Force on Policing (2015) mentioned it as well, highlighting that a Rialto (CA) study found officers and citizens behaved better when officers knew their behavior was being monitored and citizens were told about the cameras (Farrar, 2013; Ariel, Farrar, & Sutherland, 2015). Awareness of the cameras, though, is the key to generating behavior change. Additionally, the behavioral sequences that lead to

reductions in use of force or citizen complaints, and whether BWC play a key role in them, have yet to be thoroughly examined (White, 2014). Additionally, officers do not always activate their cameras, nor are citizens often aware of BWCs (Hedberg, Katz, & Choate, 2016; Katz et al., 2014). This presents a large gap in current BWC research; closing this gap can reveal the role that BWCs have in effecting positive citizen behavioral change in police encounters.

This study will address that gap by focusing on several components. Are citizens aware that they are being recorded, even if the officer does not tell them? And if not, do the cameras still have that theorized civilizing effect on citizen behavior? Most agencies' BWC policies do not require their officers to notify citizens when a BWC is recording (White, Flippin, & Katz, 2018), though citizen awareness is a necessary pre-condition of improved behavior. These questions will be answered using data collected from officer-citizen interactions; these interactions were observed during a series of ride alongs conducted with officers from the Tempe Police Department. Researchers rode with fourteen different officers during their patrol shifts, observing officer BWC activation, citizen awareness of the camera, and their mannerisms in 166 encounters. Gathering these observations in the field allowed for researchers to observe the immediate effects of BWCs and how they are employed in these interactions. The focus here will be on examining changes in citizen behavior post-BWC awareness in police-citizen encounters, rather than using a post-interaction metric such as citizen complaints.

Research Questions and Variables of Interest

Using police-citizen encounters as the unit of analysis, this study sought to answer the four following research questions:

- 1) How often do police officers activate body worn cameras during citizen encounters?
- 2) How often is the citizen aware of said activation, either through officer notification or citizen self-awareness?
- 3) How often is there positive change in citizen behavior after awareness of body worn cameras?
- 4) How often is there positive change in citizen behavior independent of body worn camera awareness?

This study will address current gaps in research by displaying the effects of BWCs on citizen behavior from a transactional perspective. Over the course of four months, data was gathered from systematic social observation (SSO) during ride alongs with Tempe PD (TPD) officers to provide information on BWC activation, BWC awareness, and citizen behavior post-BWC awareness. By measuring citizen behavior change within the actual encounters, rather than operationalizing it through reported use of force or complaints, the immediate effect of BWCs on citizen behavior can become clearer.

Literature Review

Theories for Behavior Change

The theoretical basis for expecting citizen behavior to improve upon awareness of a BWC lies in self-awareness theory and deterrence theory. Both of these theories state that people mold their behavior to fit within social norms when they know they are being watched, and a broad body of evidence supports this assertion (Ariel, Farrar, & Sutherland, 2015). Self-awareness theory, put forth by Duval and Wicklund in 1972, suggests that individuals are objectively aware of themselves and their place in the world (Duval & Wicklund, 1972). This awareness brings about a comparison of one's self to social standards, and "...All of the standards of correctness taken together define what a 'correct' person is." (Duval & Wicklund, 1972, pp. 3-4) In officer-citizen encounters, presence of a BWC may spark that awareness in individuals and lead them to behave correctly. Awareness of being monitored, though, is integral to people changing their behavior in these situations. This may make the deterrent effect of BWCs more applicable to officers rather than citizens, as officers are obviously aware of the BWC's presence (Pogarsky & Piquero, 2004). Deterrence theory states that negative behavior is likely to be avoided when people believe that punishment for breaching social norms is swift, certain, and severe, and the consequences of legal punishment neutralize any motivation to commit crime (Beccaria, 1963; Akers, 1990). Applied to body cameras, citizens aware of BWC would believe that punishment would be swift and certain due to the officer capturing the incident on camera; the severity would then be tied to the punishment they expect to receive. Perceived behavioral effects of BWCs on citizens

have largely been based off measures taken outside of (or after) these interactions, such as use of force, assaults on officers, and complaints levied against officers.

In addition to these theories, there are two specific pre-conditions that must be met in order for BWCs to have a civilizing effect. The first is that the citizen must be aware of the BWC (and that it is recording), and the second is that the citizen must be thinking rationally (White, Todak, & Gaub, 2016). First, awareness is mandatory because the mere presence of a BWC is not guaranteed to alter citizen behavior if the citizen is unaware of the camera. Awareness can come via the officer notifying the citizen of their BWC, the citizen asking the officer if they are wearing a BWC, or the citizen seeing or hearing the equipment and understanding that it is a BWC. Some BWC models vibrate and make a sound at interval moments while recording, which can be loud enough for a citizen to hear. Additionally, the citizen may already be aware that their local department uses BWCs and assumes that any officer they may interact with will be wearing a camera. This pre-conditions can be difficult to satisfy due to department policies giving officers discretion to not notify citizens of BWC presence (White, Flippin, & Katz, 2018). Second, coherent thinking is mandatory as well because if the citizen is being uncivilized and understands the implication of being on camera, they logically will change their behavior (White, Todak, & Gaub, 2016). If the citizen is mentally ill or in a state of crisis, that decision-making process may be impeded and prevent that behavior change. Heightened citizen emotions due to other factors such as intoxication or the nature of the encounter may also prevent the citizen from thinking or behaving coherently

in that moment. If either of these pre-conditions are not satisfied, then BWCs may not effect any change in citizen behavior during officer-citizen interactions.

Perception Research- What Do Police and Citizens Think About the Civilizing Effect? Past studies on the behavioral effects of BWCs have focused primarily on officer and citizen perceptions of the cameras as well as citizen complaints against officers pre-and post-implementation. Either party's perception of BWCs is thought to be a mechanism for citizen and officer behavioral change in officer-citizen encounters. Officers are generally receptive to BWCs, and their opinions on the cameras improve as they continue using BWCs (Lum et al., 2019). Perceptions about BWCs are especially positive regarding their use in encounters that result in a citation or an arrest (Ready & Young, 2015). Line-level officers tend to believe that BWC implementation will lead to better behavior within the department, though most officers do not believe cameras will significantly affect their own behavior (Jennings, Fridell, & Lynch, 2014). Some studies have found that officer perceptions of BWCs are conditioned by their perceptions of organizational justice and commitment to their agency (Kyle & White, 2017; Tankebe & Ariel, 2016), though replications of those studies have not produced the same results (Lawshe, Burruss, Fridell, & Powers, 2018; Huff, Katz, & Webb, 2018).

Citizens tend to view encounters with officers more favorably when the officer was wearing a BWC (White et. al., 2017), though actual officer behavior is the most important determinant of citizen satisfaction in those interactions (McClure et al, 2017). It must be stressed that perceptions of BWCs are attitudinal measures and may not predict how people actually behave in these encounters. There is mixed evidence regarding

increasing or decreasing rates of assaults against officers wearing BWCs (Maskaly, Donner, Jennings, Ariel, & Sutherland, 2017; Ariel, Farrar, & Sutherland, 2017), so citizen behavior may not actually be improved by the presence of a BWC.

Evidence is mixed on whether officers believe that BWCs will improve their own behavior, even after using BWCs (Headley, Guerette, & Shariati, 2017). Meanwhile, citizens tend to believe that BWCs will improve officer behavior, though field tests have shown that citizens' perceptions of officer behavior may be more tied to use of procedural justice tactics than the presence of a BWC (Lum et al., 2019). These mixed findings display a disconnect between officers and citizens regarding the expected effects of BWCs; both parties tend to believe the other's behavior can and should be improved by the presence of a BWC. Body camera presence does not seem to have an effect on citizen behavior in terms of resisting arrest (Hedberg, Katz, & Choate, 2017), though it is not clear if citizens were aware of the cameras in these instances.

Force and Complaint Research. Possibly the most researched aspect of body worn cameras has been the prevalence of use of force and citizen complaints post-BWC implementation, due to high-profile cases of officer brutality and misuse of force that led to the national conversation surrounding BWCs. Departments have consistently seen decreases in complaints against officers post-BWC implementation (Lum, Stoltz, Koper, & Scherer, 2019; White & Malm, 2020), though the true reason for this decrease has yet to be determined. The most commonly agreed upon reason is reduction in frivolous citizen complaints because citizens are now aware that their encounters with police are being recorded (Malm, 2019). Others posit that this may also be due to officers changing

their behavior because they know their actions are being recorded (Ariel et al., 2017). The third possibility is that citizens change their behavior based on awareness of the BWC. Early research in this area is positive, though departments would benefit from knowing what was truly driving the reduction in complaints post-BWC implementation.

Use of force research surrounding BWCs began with positive results, though the research that has followed has been increasingly mixed over time. Maskaly et al.'s (2017) summary of 21 separate BWC studies found that BWC implementation generally leads to a reduction in instances of officer use of force; though some evidence (White, Todak, & Gaub, 2018) suggests this reduction may be temporary. In other studies (Henstock & Ariel, 2017), reductions in physical tactics such as handcuffing and physical restraint are seen post-BWC implementation, but use of canines, Tasers, and mace remains the same. Some studies have found no effect of BWCs on officer use of force, and that officers wearing BWCs might actually lead to more assaults on officers, though the use of force effect may be explained by officers' discretion and activation compliance (Ariel, Sutherland, Henstock, Young, Drover, Sykes, & Henderson, 2016a; 2016b). These different studies suffer from several limitations, such as varying definitions of use of force across police departments as well as low base rates for uses of force. Moreover, the state of the department pre-BWC implementation also matters (Gaub & White, 2020). While early research in this area was generally positive, results from continued studies over time suggest that BWC implementation can lead to unexpected issues regarding use of force. The results from these studies are still generally promising regarding BWCs and

their ability to reduce officer use of force, though more detail regarding these incidents and the department's implementation process would add further context to analyses.

As shown by the aforementioned studies, the metrics for improved citizen behavior when studying officer-citizen interactions have often been use of force and the number of citizen complaints post-BWC implementation (compared to rates of those metrics pre-implementation). As a result, literature that focuses on citizen behavior from a transactional standpoint is limited, and researchers have called for further inquiry into citizen behavioral changes in the presence of a BWC (McCluskey et al., 2017; Ready & Young, 2015). This transactional standpoint refers to the transactional nature of officer-citizen interactions, where both parties' behavior is affected in response to the other's actions (Binder & Scharf, 1980; 1982; Terrill, 2005). Research viewing officer-citizen interactions from a transactional standpoint would be able to show the immediate within-interaction effects of BWCs on citizen and officer behavior, potentially providing more detail than department use of force and citizen complaint reports.

Failures in Implementation: Activation and Notification. The mixed findings regarding BWCs' effects on use of force and complaint reduction may be explained by implementation failure, most notably failure to activate the cameras and/or notify the citizen of the camera's presence. It is largely agreed upon that the positive effects of BWCs will not be realized unless they are activated (Malm, 2019). Activation rates within departments can vary widely based on department policy and officer acceptance of BWCs. McClure and colleagues saw a range of 2% to 65% activation across the sixty officers included in their study; activation rates varied based on officer familiarity with

the cameras and the nature of their work (McClure, La Vigne, Lynch, Golian, Lawrence, & Malm, 2017; Lawrence, McClure, Malm, Lynch, & La Vigne, 2019). Officer non-compliance with activation policy may be frequent until BWC processes become normal practice for them and officer buy-in increases as well (Hedberg, Katz, & Choate, 2016; Katz et al., 2014). Activation compliance may actually decrease over time as well (Headley, Guerette, & Shariati, 2017; Katz et al., 2014). Officer support for different activation policies also tends to vary by department (Newell & Greidanus, 2018). As one may predict, departments with mandatory activation policies tend to see higher activation rates, and officers that are more supportive of BWC implementation tend to have higher activation rates compared to other officers (Young & Ready, 2018). For example, the Mesa Police Department (2013) saw a more than 40% decline in activations when they adopted a policy that was more discretionary. Tempe PD issues BWCs to all its officers and has a mandatory activation policy, though citizen notification of the BWC is discretionary.

Studies do not always examine whether presence of a BWC translates to citizen awareness of the camera. Ariel (2016) states that “...BWCs can be hypothesized to *reduce crime via a general deterrence message...*”, though the BWCs themselves must be effective and offenders must be aware of them in the first place. Ariel’s (2016) study assumes citizens to be aware of BWCs via media coverage or word of mouth rather than including a more concrete awareness metric; other studies (McCluskey, Uchida, Solomon, Wooditch, Connor, & Revier., 2017; White, Todak, & Gaub, 2017; Braga, Sousa, Coldren, Rodriguez, 2018; Hedberg, Katz, & Choate, 2017) fail to measure

citizen awareness as well, as department policy or methodology used in these studies can inhibit gathering this information. Citizens are occasionally surveyed after they have encountered an officer wearing a BWC to see if they remember the officer recording them (McClure et al., 2017; White, Todak, & Gaub, 2016), though the time gap between the event and the follow-up survey may lead to lowered rates of reported BWC awareness. In White, Todak, and Gaub's (2016) study only 28.5% of citizens reported being aware of a BWC during their encounter, while in a separate (2018) study citizen awareness was recorded at 23.6%.

Issues with either BWC activation or citizen notification can potentially short circuit the overall benefits of BWCs (Lawrence, McClure, Malm, Lynch, & La Vigne, 2019). If BWCs are not activated, then the potential benefits of increased officer or citizen accountability cannot be realized. Lack of activation may also negatively affect citizen perceptions of procedural justice in the same way that BWC activation leads to increased perceptions of procedural justice (Mastrofski et al., 2016). Activation of the BWC is a signal to the citizen that the officer's actions will be accounted for and the officer is therefore trustworthy. This, though, still relies on citizen awareness of the camera. Absence of citizen awareness of BWCs also limits the camera's effectiveness at civilizing citizen behavior. Research on activation compliance and citizen notification is scant because it is difficult to measure, which is why many of the aforementioned studies rely on administrative data from police departments.

Systematic Social Observation (SSO). An innovative way to record BWC activation and citizen notification is through systematic social observation (SSO). SSO is used to gather

objective, replicable field observations of social interactions, making it the preferred method for recording police activity as it may be more reliable than administrative data (Mastrofski, Parks, & McCluskey, 2010). Researchers employ SSO when they are seeking to observe social encounters in their most natural form. Using SSO also reduces the reliance on using administrative data from police agencies, which has limitations, is difficult to use, and sometimes takes a substantial amount of time to receive from the police department. SSO can also be used to capture information not commonly in administrative police data. For example, not all officer-citizen interactions generate an official report and often do not appear in data. Capturing this information through SSO allows for researchers to note how officers exercise discretion and how citizens react to different policing strategies.

Despite these benefits, SSO does have some limitations. Subjects in a study employing SSO may behave differently due to their knowledge of being observed; this is known as the “Hawthorne Effect” (Mayo, 1933). This could potentially compromise data collected within that study, though it is difficult to measure the Hawthorne Effect. Officers could augment their normal approaches with citizens based on what they believe looks more acceptable to an outside observers. Data collected via SSO is also dependent on what the researcher is able to observe. Researchers may sometimes be unable to gather sufficient data during a social interaction due to their distance from the interaction, the setting in which the interaction is taking place, or non-study subjects augmenting their behavior upon seeing the researcher. These potential issues emphasize the importance of proper training in SSO (Mastrofski, Parks, & McCluskey, 2010). Proficiency in handling

scenarios that jeopardize data collection is critical, otherwise researchers risk their data being unreliable or unusable. Some of these limitations can be overcome by debriefing with study subjects (in this case, police officers) after conclusion of the interaction to gather information that was missed. Overall, the freedom to capture a wide variety of information via SSO makes it an attractive methodology to employ in policing and social science research in general.

Some previous studies have used SSO to observe the transactional nature of police-citizen encounters. Mastrofski and colleagues used SSO to test for predictors of procedural justice tactics when officers interacted with citizens (Mastrofski, Jonathan-Zamir, Moyal, & Willis, 2016). They found that citizen factors such as the citizen's role in the encounter, as well as situational factors such as the number of citizens on scene and officers' mental fatigue, significantly affected the tactics that officers employed. These variables were measured at the beginning of encounters, however, and therefore could not completely capture the back-and-forth nature of these interactions, or how citizens may have responded to specific strategies.

McCluskey and colleagues (2017) also used SSO to measure procedural justice tactics used by officers in police-citizen encounters before and after BWC deployment. Much like this current study, researchers in McCluskey et al.'s (2017) study rode along with patrol officers during shifts and gathered data from interactions that they viewed. Observing 555 interactions between LAPD officers and citizens, they found significant increases in procedural justice post-BWC implementation. Whether this was due to citizen behavior, officer behavior, or organizational changes, however, was undetermined.

Other facets of McCluskey and colleagues' methodology are similar to that used in the present study. Determining the officer's role in the encounter was based on their involvement in the call on scene, and similar data points regarding citizen and officer levels of respect and participation were included in both studies. Citizen intoxication, emotions, and evidence of mental illness were included in both studies as well; while McCluskey et al.'s (2017) study frames that data around how BWC presence affects procedural justice tactics, the current study uses similar methods to observe whether officers activate the BWC, whether citizens are aware of BWCs, and whether the cameras change citizen behavior.

Todak and James (2018) employed a similar SSO methodology with officers from the Spokane Police Department, examining 131 officer-citizen encounters to view how officer de-escalation tactics affected citizen behavior. Calm and empathetic officers were found to have more success in making citizens calm by the end of an encounter. While McCluskey and colleagues' (2017) study does focus on the transactional nature of how citizen behavior responds to officer tactics in these interactions, BWC activation and notification were not included in the analysis.

Methods

Research Setting

This study was conducted with officers from the Tempe (AZ) Police Department (TPD), an agency that serves a population of around 192,000 citizens (United States Census Bureau). Tempe PD employed close to 200 patrol officers in 2018 that covered five separate areas of the city: North, South, Central, Metro, and Traffic

(www.tempe.gov). The city's population is just under 68% white and slightly above 22% Hispanic or Latino; Median income from 2014 to 2018 was \$54,210 annually, and 21.3% of the city's citizens live in poverty (United States Census Bureau). In 2019, Tempe had 891 reported violent crimes and 7,435 property crimes, lower than the 908 violent crimes and 7,819 property crimes reported in 2018 (www.tempe.gov). Tempe is also the site of Arizona State University's largest campus, with over 51,000 students enrolled in person and online at that campus alone (Enrollment figures, 2019). Data collection for this study took place from December 2018 to April 2019.

Sampling Frame. Officers were selected for this study via an anonymous nomination process where their peers and superiors recognized them for their skills at de-escalation. Researchers from this study attended roll calls at TPD and presented in front of each squad, asking for them to volunteer in the nomination process and explaining our operationalization of de-escalation for the study. Each officer was asked to write down the names of three of their colleagues who they deemed the most skilled at handling difficult, potentially violent encounters. The first stage of this process produced a list of 136 officers who were nominated at least one time. The list of 136 nominated officers was then sent to the 20 or so sergeants within the department, who reviewed the list and each provided their own "top 10." Based on this two-level nomination process, 14 "top de-escalator" officers were chosen and agreed to be in the study. Three of the officers were female (two White, one Latinx), and the remaining eleven were male (one African-American, one Latinx, nine White). Officers worked at all hours; five worked day shifts, five worked night shifts, and three worked swing shifts. One officer, a detective who was

in uniform and drove a patrol car for the shifts in this study, worked patrol shifts based on squad need and shift availability; that officer's ride-along occurred during a night shift.

Data Collection Procedures. Interactions between officers and citizens were coded using systematic social observation. Prior research on the civilizing effect of BWCs has focused on the results or end products of interactions, such as uses of force and citizen complaints against officers (White, Todak, & Gaub, 2018; Henstock & Ariel, 2017; Lum et al., 2019). SSO allowed researchers to note any potential civilizing effect from a within-interaction perspective, looking at changes in citizen behavior post-BWC awareness. Relaxed citizen behavior during interactions may be the catalyst for fewer citizen complaints observed in previous studies, or at least a contributing factor to go with citizen knowledge that their transgressions are being recorded. For that reason, this study focuses on several pieces of data that were collected: BWC activation, citizen notification, citizen awareness of the camera, and citizen behavior change.

The researchers in this study were four Masters and PhD students from Arizona State University. The four researchers acted as observer-participants, where they engaged with the subjects (officers) throughout the ride alongs but did not interfere when they encountered citizens. Researchers talked with officers throughout their rides, answering questions about the study and asked questions about interactions if needed. Officers were told from the beginning of the study that researchers were there solely to observe their actions rather than critique them. This was done to reduce the potential for a "Hawthorne effect" (Mayo, 1933), discussed earlier. Prior to the ride alongs the four researchers took part in a SSO training facilitated by Dr. Natalie Todak, who has prior experience with

SSO studies (Todak, 2018; Todak & James, 2018). The researchers were told what to expect during a police ride along, challenges that they may face when collecting data, and how to describe scenarios so that data recording was consistent across all team members.

Researchers coded 145 unique variables throughout each sustained interaction that an officer had with a citizen. Primary interactions were those where officers spent a reasonable amount of time with a citizen and sustained some type of conversation with them, similar to the standards employed by Mastrofski and colleagues (2016). Brief interactions that may have lasted less than a minute were coded as supplemental encounters and not used for this analysis. Often, observers took notes on interactions and coded them in the data collection instrument during a pause or after the ride if officers were not able to take many breaks. Each observer also went on a preliminary ride-along to get familiar with the coding instrument as well as ride-alongs themselves.

The coding instrument used in these ride-alongs covers details about the officer (race, gender, experience, age), the ride-along (date, start time and end time, weather conditions), as well as details about the specific interaction (type of call, citizen demographics, etc.). Variables operated on a mix of binary, nominal, and ordinal scales, along with several narrative questions and a notes section for researchers to provide qualitative observations that could add context to the data they recorded. In total, researchers went on 44 ride-alongs and coded 166 police-citizen interactions. Table 1 shows the specific variables that were the focus of this study. These variables were chosen due to their ability to provide answers to the research questions. Citizen behavior was considered “highly respectful” if the citizen was especially polite or friendly towards

the officer, for example referring to them by their formal title throughout the interaction or engaging in a casual conversation. “Somewhat respectful” citizens were those that were compliant throughout the encounter and did not show any form of hostility, but were also not overly friendly with the officer. If a citizen’s overall demeanor could be viewed as slightly curt, either by making a rude comment or being standoffish without overly escalating the situation, then they would be considered “somewhat hostile”. Citizens making threats, yelling, or being persistently noncompliant with officers would be considered “highly hostile”. “Other” is meant to encapsulate behaviors beyond these descriptions, such as a citizen having a mental episode, and “hysterical” refers to citizens experiencing extreme or uncontrollable levels of emotion. No cases were dropped before initial analyses were run, though some later analyses focus on specific subsets of the data due to the nature of the research questions.

Table 1

Operationalization and Coding of Variables

	Name	Coding instructions
Citizen variables	Behavior at start of encounter	0 = <i>highly respectful</i> , 1 = <i>somewhat respectful</i> , 2 = <i>somewhat hostile</i> , 3 = <i>highly hostile</i> , 4 = <i>other</i> , 5 = <i>hysterical</i>
	Behavior at end of encounter	0 = <i>highly respectful</i> , 1 = <i>somewhat respectful</i> , 2 = <i>somewhat hostile</i> , 3 = <i>highly hostile</i> , 4 = <i>other</i> , 5 = <i>hysterical</i>
	Awareness of BWC	0 = <i>unaware</i> , 1 = <i>aware</i>
Officer variables	Recorded encounter	0 = <i>did not record</i> , 1 = <i>did record</i>

The following diagram displays a flow chart of events for these officer-citizen interactions and the data that was gathered during them. Once citizen behavior at the beginning of an encounter was recorded, researchers went through a sequence to determine if there was BWC activation, citizen notification, and citizen awareness of the camera. At the end of the encounter, citizen behavior was assessed to see if there had been any noticeable change throughout the interaction. This flow chart not only visualizes the sequence of events in these officer-citizen interactions but also highlights the necessary pre-conditions for a civilizing effect among citizens. If citizens are not notified of the camera, then there must be some other form of citizen awareness in order for the BWC to potentially have a civilizing effect. And if the BWC is not activated in the first place, a civilizing effect is unlikely to be seen because citizens know that their actions are not being recorded.

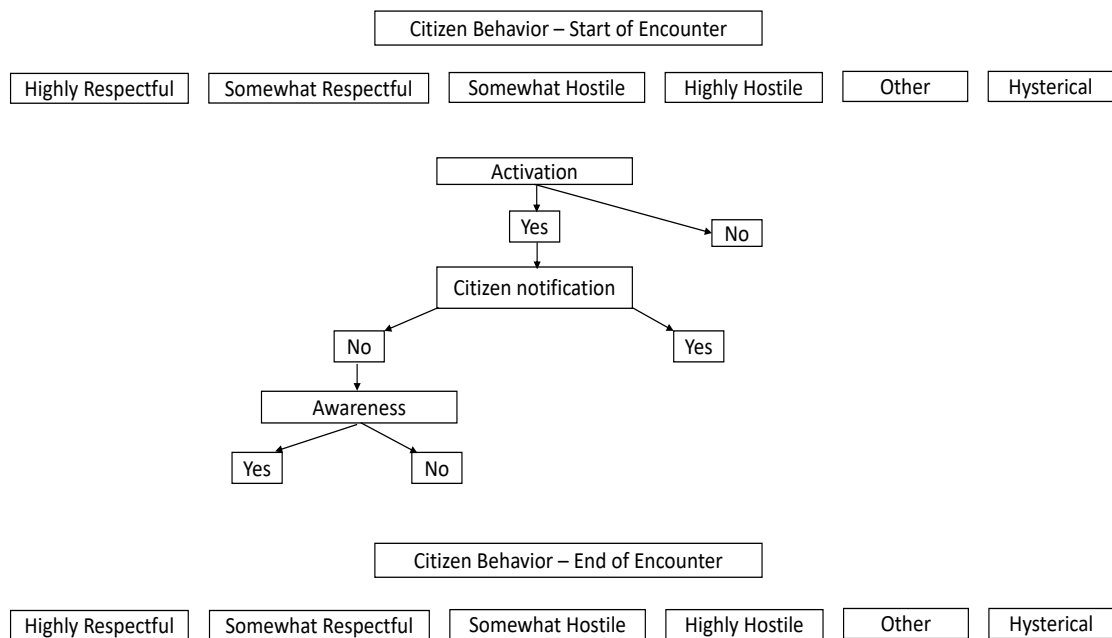


Figure 1. Interaction Flow Chart

Analysis. Stata/IC 15.1 for Mac was used for the analyses in this study. To address the research questions pertaining to BWC activation rates and citizen awareness of BWC activation, tabulations were run to determine how frequently these events occurred. Cross-tabulations were then run to view the different frequencies at which citizens were at certain behavioral levels, and whether they were aware or unaware of BWC activation.

Results

Table 2 lists the rate of BWC activation among the officers in the study. Officers displayed a high rate of compliance with BWC activation policy, as they recorded 158 of their 166 (95.18%) encounters with citizens in this study. BWC activation did not occur in 8 of the 166 (4.82%) interactions.

Table 2

<i>BWC Activation</i>		
	Frequency	Percentage
No	8	4.82%
Yes	158	95.18%
Total	166	100%

Table 3 lists the frequency in which citizens were aware that they were being recorded by a BWC. This awareness could have come about by the citizen asking the officer if they were being recorded, clearly looking at the camera, or by the officer notifying the citizen that they were being recorded. Citizens were largely unaware of the cameras, as there was no clear awareness in 151 of the 157 (96.18%) interactions where a BWC was activated. Citizens were aware of the camera in only 6 of the 157 (3.82%) interactions recorded.

Table 3

<i>BWC Awareness</i>		
	Frequency	Percentage
Unaware	151	96.18%
Aware	6	3.82%
Total	157	100%

The following diagram populates with data the flow chart presented earlier in the Methods section. This tool serves as a visualization for how the encounters in this study played out in terms of BWC activation, citizen notification, and awareness. Of the 158 cases where a BWC was activated, citizen awareness was noted in all but one instance. Researcher notes from that interaction did not clearly indicate whether or not the citizen was aware of the BWC, thus their level of awareness was coded as missing.

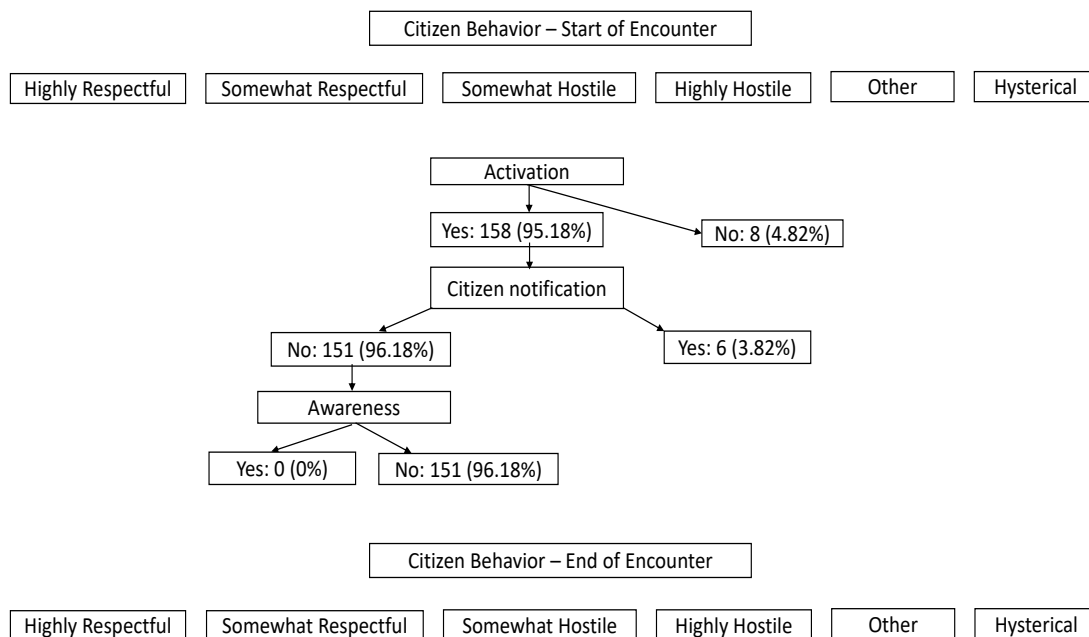


Figure 2. Interaction Flow Chart Results

Table 4 shows the adjustments in citizen behavior in those six interactions where citizens were aware that they were being recorded. In two of six interactions (33.33%), citizen behavior was “highly respectful” throughout the encounter. In one interaction (16.67%) the citizen’s behavior began at “somewhat respectful” and became more positive, ending at “highly respectful”. In one interaction (16.67%) the citizen’s behavior was “somewhat respectful” at the beginning of the encounter and regressed to “slightly hostile” by the end. Citizen behavior was categorized as “other” at the beginning and end of two out of six (33.33%) encounters. A chi-square test was run to see if citizen awareness of the BWC was related to their behavior change throughout the encounter. The resulting chi-square of 8.000 along with the non-significant p-value of 0.092 indicate that there is no association between the two variables, however, given the small number of cases, there is not enough statistical power to determine the presence or absence of a relationship between BWC awareness and changed citizen behavior.

Table 5 displays changes in citizen behavior independent of BWC awareness. Overall, citizen behavior generally was consistent throughout the 150 encounters where citizens were not aware of BWC. Citizens were consistently “highly respectful” in 97 interactions (64.67%), “somewhat respectful” in 15 (10%) cases, “somewhat hostile” in six (4%) interactions, “highly hostile” in one (0.67%) interaction, “other” in four (2.67%) interactions, and “hysterical” in one (0.67%) interaction. In total, citizen behavior showed no changes throughout 124 of the 150 (82.67%) encounters where there was no BWC awareness. There were 15 interactions (10%) where citizen behavior changed positively from the start of the encounter to the end of the encounter, independent of BWC

awareness. A chi-square test was run for this table as well; the resulting chi-square of 439.174 and significant p-value of 0.000 indicate no association between these variables as well. Again, there is still not enough statistical power to determine whether or not there is a relationship between BWC awareness and changed citizen behavior.

Table 4

Citizen Behavior Change When Aware of BWC

Citizen Start Behavior	Citizen End Behavior				
	0 (highly respectful)	1 (somewhat respectful)	2 (somewhat hostile)	3 (highly hostile)	4 (other)
0 (highly respectful)	2	0	0	0	0
1 (somewhat respectful)	1	0	1	0	0
2 (somewhat hostile)	0	0	0	0	0
3 (highly hostile)	0	0	0	0	0
4 (other)	0	0	0	0	2
Total (%)	3 (50%)	0	1 (16.67%)		2 (33.33%)

Table 5

Citizen Behavior Changes Independent of BWC Awareness

Citizen Start Behavior	Citizen End Behavior						Total
	0 (highly respectful)	1 (somewhat respectful)	2 (somewhat hostile)	3 (highly hostile)	4 (other)	5 (hysterical)	
0	97 (64.67%)	0	2 (1.33%)	0	0	0	99
1	2 (1.33%)	15 (10%)	5 (3.33%)	2 (1.33%)	0	0	24
2	1 (0.67%)	6 (4%)	6 (4%)	2 (1.33%)	0	0	15
3	0	1 (0.67%)	1 (0.67%)	1 (0.67%)	0	0	3
4	1 (0.67%)	1 (0.67%)	0	0	4 (2.67%)	0	6
5	0	1 (0.67%)	1 (0.67%)	0	0	1 (0.67%)	3
Total	101	24	15	5	4	1	150

Two of the cases where there was some form of BWC awareness saw the primary citizen acting highly respectful towards the officer throughout the encounter. In one case, the primary officer was on the scene of a collision and took reports from the at-fault citizen as well as family members of the injured grandmother and grandfather in the second car. The officer then delivered the family's child car seats to them in the hospital and spoke with them about the tow order on their grandmother and grandfather's car, and mentioned having everyone's interviews recorded on camera. The family members on

scene were reassured by the officer's mention of a camera, as well as his general demeanor and friendliness. While awareness of a BWC did not cause a change in citizen behavior in this case because the citizens were already very friendly with the officer, knowledge of the camera's evidentiary capabilities helped the family feel at ease throughout the encounter.

The second case with BWC awareness where the citizen remained highly respectful throughout the encounter was a late-night domestic violence call. Officers on scene approached the citizens' trailer, asking them to step outside while the complainant stayed inside. The primary officer got a statement from the complainant and then briefly spoke with the complaine, advising him before taking his statement that he was on camera. Throughout the encounter the complaine was generally calm but somewhat frustrated at the situation, though he remained highly respectful towards the officers on scene. The officer ended their interaction when the complainant stepped outside and began behaving erratically; in response, the primary officer became authoritative and told the couple to separate, calm down, and go to bed. The complaine remained calm even when the complainant came out and tried to start an argument, and given his calm manner when the officers arrived on scene as well, it is uncertain whether or not his demeanor can be attributed to awareness of the BWC.

The complainant in this interaction is the citizen whose behavior changed from initially respectful to somewhat hostile by the end of the encounter while being aware of a BWC. Because the researcher on scene was told to observe from a distance due to the call being potentially hazardous, they had to rely on the primary officer's account of the

beginning of the encounter in order to note the citizen's initial behavior. This limitation will be addressed following the discussion of the results. According to the officer the complainant was upset at first and then calmed down as her report was taken, and advised her of the BWC during the report-gathering stage as he later did with the complaine. The researcher was then able to view the complainant's ending behavior when she exited the trailer to argue with the complaine. Based on the context of this encounter, the citizen's escalation of behavior likely has less to do with being aware that she was on camera and more to do with the emotions that led her to report a domestic violence situation in the first place.

Another interaction including BWC awareness saw a citizen begin acting somewhat respectfully towards the officer, and become more respectful as the interaction progressed. In this instance the citizen was mentally ill and approached the officer to seek assistance. Very early on in the encounter the citizen asked if she was being recorded, and her knowledge of the BWC did not seem to immediately affect her behavior in a noticeable way. Based on the narrative of the event, her emotional status was largely affected by frustration from not being able to convey her feelings and being misunderstood occasionally by the officers on scene. The primary officer adjusted his actions accordingly to make the citizen feel more secure, which seemed to have a greater effect on her being more respectful and thankful by the end of the encounter than did her awareness of a BWC.

Last, in two of the interactions where there was some sort of BWC awareness, citizen behavior was described as "other" throughout the encounter by the researcher on

scene. In one interaction, officers followed up on a call of a suspicious person throwing a bike over a fence into an abandoned lot and then jumping after it. Officers found five homeless individuals squatting in an abandoned house on scene, and one of those individuals had an active warrant out against him. The primary officer being observed talked continually to that citizen, explaining what was happening and why. The citizen remained calm but unresponsive throughout the encounter and did not behave in any sort of escalated manner. The researcher did not note how or when the officer notified the citizen they were being recorded, though it is clear that knowledge of the camera did not affect the citizen's behavior, whether for better or worse. The citizen clearly had prior run-ins with the legal system, so his unperturbed attitude may have been due to knowledge of what lay ahead of him rather than wanting to keep his behavior in line on camera.

In the last encounter of this category, the primary officer responded to a subject disturbance call at a gas station and observed a man yelling loudly at the scene before wandering behind said gas station. The officer followed the suspect, asking the man to stop and speak with him; the suspect proceeded to ignore the officer and drink a bottle of alcohol. The officer then advised the citizen that he was under arrest, handcuffed him, and told him that their encounter was on camera as well. From the time the officer handcuffed the suspect up until he was processed, the suspect would intermittently scream at the top of his lungs and proclaim that he was Satan, displaying clear signs of mental illness. The officer responded to the citizen's actions with sarcasm and a "let's move this along" attitude, which did not seem to affect the citizen. Overall, in cases

where citizens were aware of a BWC, it did not seem to have an effect on their behavior. If the citizen's behavior did change throughout the encounter, it was likely due to other factors such as their mental illness or emotions associated with the issue at hand.

Discussion

Evidence surrounding the impact of BWCs on citizen behavior is increasingly mixed, and prior research has rarely focused on the transactional nature of police-citizen interactions. To address this limitation, the current study used data collected via on officer-citizen interactions to illustrate the flow of these interactions and how citizen behavior changes (or doesn't) post-BWC awareness. There are several critically important preconditions that must be met for a citizen civilizing effect to occur. Those preconditions include: activation of the BWC, citizen awareness of the BWC (through officer notification or other means), and rational thinking by the citizen. As it is the first precondition for BWCs to establish a civilizing effect, the first research question in this study is focused on how often officers activated their cameras when interacting with citizens. Tempe PD officers displayed a high rate of activation (95.18%) in their encounters. The activation compliance rate is "...arguably the most important moderator of BWC effectiveness" (Malm, 2019, p. 125). Tempe officers have been using BWC since 2015 and should be very familiar with them by this point. Additionally, seven of the eight instances of non-activation occurred at a local high school. Tempe PD's BWC policy states that "...minors should not be recorded without a parent's consent when they are not a suspect or a victim" (General Order 17.105, 2017). In these cases, the officer may have refrained from recording based on the nature of the encounter, the student's

role in the encounter, or the absence of their parents. Officers in Tempe are largely compliant with their department's mandatory BWC activation policy, and cases where they are not activating are covered by their department's policy allowing BWC to be deactivated during specific circumstances.

The TPD officers in this study have a much higher rate of BWC activation compliance than other agencies that have been studied. Though the officers in this study were peer-nominated top de-escalators (and not representative of the department as a whole), it would not be surprising if the other officers within the department displayed high rates of activation compliance as well. By this point, BWC use is a well-established, normal practice for officers within TPD, which has been linked to activation compliance in the past (Hedberg, Katz, & Choate, 2017). TPD has been using BWCs for nearly five years now, so officer buy-in and familiarity with the technology is likely at a level where it no longer negatively affects activation rates, as opposed to other departments with less support for BWCs (Newell & Greidanus, 2018; McClure et al., 2017). Again, while these numbers may not be representative of TPD as a whole, they do serve as an example of how increased officer buy-in or familiarity with BWCs over time can lead to consistently high rates of activation compliance. In terms of a civilizing effect on citizens, the first precondition –activation –is nearly always met.

The second precondition is citizen awareness. Citizen awareness was recorded when an officer notified the citizen of the camera, or the citizen gave a clear visual or auditory cue that they had noticed the camera. When officers activated their camera, citizens were aware of the presence of a BWC in fewer than 4% of these encounters.

These numbers are very low, but consistent with prior literature regarding citizen awareness of BWCs (McClure et al., 2017; White, Todak, & Gaub, 2016). This study also observed citizen notification and awareness during the encounter rather than using a follow-up survey, so these numbers are not reliant on the citizen's memory of the event. Based on these results, the second precondition of a citizen civilizing effect is almost never met. As a result, there was virtually no chance for BWCs to have a civilizing effect on citizen behavior during these encounters. This is important considering one of the expected benefits of BWC implementation has been their theorized "civilizing effect" on citizens during officer-citizen encounters.

For context, most police departments do not require their officers to notify citizens of BWC; fewer than 20% of agencies that have received a federal grant for BWCs mandate citizen notification (White, Flippin, & Katz, 2018). Many other nations require citizen notification, with Canadian departments specifically stating de-escalating citizen behavior as their reason for doing so (Pearson, 2019; Body-Worn Video Camera Standard Operating Procedure); some departments have officers wear brightly colored cameras or placards announcing BWC presence to address the issue of citizens being unaware. Tempe PD's BWC policy states that "When practical, officers should advise subjects that they are being recorded"; additionally, officers are recommended to tell citizens they are being recorded if the citizen asks them (General Order 17.105, 2017). As the policy states that officers "should" take these actions rather than "shall", these serve as recommendations rather than mandates. This language gives officers discretion to make their own decision on whether or not to notify citizens of their BWC during an

interaction. The freedom granted by Tempe PD's BWC policy may have been a contributing factor to the aforementioned low BWC awareness rate for citizens; the particular group of officers used for this study and their de-escalation skills likely played a large role as well. TPD gives their officers the choice to notify citizens of BWC presence, and the officers within this study use strategies that focus heavily on interpersonal skills like carrying a conversation. Notifying citizens of a BWC may interrupt the flow of that conversation and put that citizen at unease, hence officers chose to typically not announce BWC presence.

Citizen behavior was noted throughout encounters with BWC awareness to determine how often citizen behavior changed positively in the presence of a BWC. Results indicate there was rarely a need for a civilizing effect. The vast majority of citizens were respectful toward the officer throughout the entire encounter. Moreover, citizen behavior rarely changed from the beginning to the end of the encounter. When citizens were aware of BWCs, there was no clear indication that BWCs were responsible for a positive change in their behavior. Citizen behavior during interactions with clear BWC awareness was consistent throughout four of the six encounters. In the two cases where citizen behavior did change with BWC awareness, one case involved a positive shift in behavior while the other involved a negative shift in behavior.

Did citizens who were unaware of BWCs act similarly to those who were aware of the cameras? Citizen behavior was noted in these encounters as well and, as stated above, most interactions saw no change in citizen behavior. Similar to the cases that did involve BWC awareness, the split between positive and negative shifts in citizen

behavior was nearly equal. The similarities in behavioral splits between these cases and ones with BWC awareness indicate that there may be factors unrelated to BWC activation or awareness that govern how a citizen acts throughout an encounter. Departments hoping to instill a civilizing effect via BWCs may want to consider this along with the necessary precondition of BWC awareness when shaping their camera policy.

The results shown in this study indicate that BWCs cannot act as catalysts for improved citizen behavior if citizens are not aware of them in the first place. Whether that purported benefit leads officers to notify citizens about the presence of a BWC or not boils down to context, department policy, and the officer's personal preference. Officers may find it useful to notify citizens of BWC presence as prior research has shown that citizens are unreliable when remembering whether or not BWCs were present in an interaction (McClure et al., 2017; White, Todak, & Gaub, 2016). Anecdotally though, officers the author rode with indicated that they typically chose not to notify citizens of BWC activation if it felt unnecessary in that situation. Even if the citizen was being hostile or had heightened emotion, these officers typically trusted their skills at de-escalation more than BWC notification to manage the citizen's behavior. Some researchers (Ariel et al., 2016b) have noted that BWC presence may agitate citizens and lead to increased aggression in some situations, which could explain why officers may choose to not notify citizens of their camera. Whether or not this attitude is shared among most officers or specific to these "top de-escalators" cannot be determined until further studies involving a wider array of officers are conducted.

If the low level of citizen awareness found in this study is also common in other jurisdictions,, what would then explain reductions in force and complaints? There are some possible explanations pointing to both officers and citizens. For officers, it may be the environment of contagious accountability created by BWCs, as well changing their own behavior because they know their actions are being recorded (Ariel et al., 2017). BWC awareness has also been linked to increased perceptions of procedural justice in the past (White, Todak, & Gaub, 2016), so the answer may lie there. Officers may be more motivated to use procedural justice tactics when they know citizens are aware of BWCs and that there is video evidence of their encounter. Conversely, citizens may view officers as more trustworthy and legitimate when they know that officers are wearing BWCs, as citizens often call for departments to implement BWCs to keep officers accountable. Regarding complaints, citizens may now be prevented from filing frivolous complaints because they know that BWC video would provide an objective account of the scene (Malm, 2019).

The explanation for citizen behavioral change once again requires the citizen to be aware of the camera. Citizen BWC awareness was very low in this study, as it has been in previous studies (McClure et al., 2017; White, Todak, & Gaub, 2016); changes in officer behavior may then be the cause for reductions in force and complaints across other departments. This remains speculative until similar studies test this relationship and add to this body of evidence.

Limitations

There are several limitations in this study that should be considered. First, due to the use of SSO to gather data from these officer-citizen interactions, observers may not have been able to effectively determine whether or not citizens were aware of BWC presence unless they said or did something to indicate awareness. Officers of the Tempe Police Department have discretion in notifying citizens of BWC; if verbal announcement of BWC was not provided during the interactions in this study, observers had to rely on citizens audibly or visibly making note of the BWC. If a researcher observed an interaction from a distance and could not hear the dialogue between the officer and the citizen, they were able to ask the officer after the call if they announced that they were wearing a BWC and get other details about the encounter. However, there was no follow-up question in the coding instrument where observers could ask citizens to confirm whether or not they were aware of the presence of a BWC. It is possible that some citizens may have been aware that they were on camera, but did not make any clear verbal or visual indication of that awareness. TPD BWCs have been covered extensively in the media, though we cannot estimate an accurate level of awareness that the citizens in these interactions may have had.

Future studies could employ several different approaches to improve on this. One would be including a follow-up question to ask citizens whether or not they were aware of the presence of a BWC. Along with that question, researchers could ask citizens what their knowledge of BWCs was prior to their interaction. If the citizen was unaware of what BWCs are, that would likely explain why they did not make any clear indication of

BWC awareness. Conversely, a citizen who was already aware of BWCs may not indicate awareness because they go into the interaction assuming the officer is wearing a camera and see no need to ask otherwise. White, Todak, and Gaub (2016) employed a similar methodology when conducting post-interaction phone interviews with citizens from Spokane, WA to assess their perceptions of BWCs. Those interviews were conducted approximately one to three weeks after the recorded encounter. Most respondents felt positively towards BWCs and believed that the cameras make both citizens and officers more cooperative and respectful. Still, fewer than thirty percent of respondents stated that they were aware of the BWC during their interaction (White, Todak, & Gaub, 2016). Similar results are seen in their (2018) study with Tempe citizens; most citizens supported BWCs, but fewer than one quarter were aware of BWC presence when they had interacted with a Tempe PD officer. No significant differences were seen regarding attitudes towards BWCs when comparing those who were aware of their presence to those who were unaware (White, Todak, & Gaub, 2018). Another potential solution would be conducting a quasi-experimental study where citizen notification of BWC is randomized by either shift, encounter, or officer, in order to determine if BWC awareness does in fact have a civilizing effect on citizens, similar to McClure and colleagues' (2017) study.

Additionally, the police-citizen interactions in this study contain a very low rate of BWC notification. Awareness of a BWC was present in only 6 interactions out of 157 (3.82%) where a BWC was activated. As mentioned earlier, the low number of interactions with awareness of a BWC limited data analysis to cross-tabulations due to

insufficient statistical power for other types of analysis. Again, this could potentially be overcome in the future by conducting a quasi-experimental study in a police department where BWC notification is randomized and more encounters are observed.

The officers included in this study were also not randomly selected for participation, but rather were selected through a nomination process by their peers and superiors due to their skills at de-escalation. If, and how much, this nonprobability sampling technique affected the data is undetermined. Despite this, the officers in the study represented diverse demographics in terms of race, gender, rank, and assignment. As well, researchers were randomly paired to the shifts in which they rode with officers so that coding techniques stayed consistent.

As pointed out in previous studies (Todak & James, 2018), the “Hawthorne Effect” must be considered in this study given the nature of systematic social observation. We cannot determine whether, or how much, officers changed their behavior because they knew they were in the presence of a researcher who was detailing their interactions. Due to the officers being selected as top de-escalators within the department, though, it may be that the behavior of the officers during these rides was not considerably different than how it is when they are on a normal shift.

Conclusion

This study sought to answer whether or not BWCs generate a civilizing effect on citizen behavior in officer-citizen encounters. Looking at other elements of these encounters first, officers in Tempe had a high BWC activation compliance rate when interacting with citizens. High activation compliance, however, was not associated with

citizen notification of BWC. Independent of BWC awareness, citizen behavior rarely changed throughout encounters in terms of level of hostility or respect shown towards the officer; a positive change in behavior was seen in only 10% of interactions as well. This study cannot provide evidence of observable civilizing effect of BWCs on citizen behavior because the precondition of BWC awareness is rarely met, leading to a lack of statistical power. In instances where citizens were not clearly aware of the presence of a BWC, officers generally chose to use their discretion and assessment of the situation to not notify citizens of their cameras. Even in interactions where citizens may have been acting in a hostile manner, officers tended to trust their own interpersonal skills more than BWC notification alone to bring citizens down to a more calm state. However, officers in this study were included because they were particularly well-known within their department for having these skills; other line-level officers may not possess these same skills, or may employ different tactics when dealing with hostile citizens. If a department is implementing BWCs with officer safety or improved community relations as their primary concerns, then the notification and awareness aspect of creating a civilizing effect becomes all the more important. Mandatory notification would ensure that the preconditions for BWCs to potentially have a civilizing effect are met, assuming that the officer activates their camera as well. In that case, departments with mandatory notification policies may also want to consider training their officers on different ways to notify citizens of BWC activation. Officers in this study stated that many times they chose not to notify citizens of their cameras because of concerns the citizen may react negatively. If officers are taught different methods to employ during notification, such as

different tones or phrases to use based on the situation, the potential for negative citizen reaction may be mitigated while also maximizing the potential for a civilizing effect.

BWC cannot definitively be described as a catalyst for improved citizen behavior based on the evidence gathered here. Whether BWC awareness actually has a civilizing effect on citizen behavior, then, remains to be seen. Officers may be the only ones susceptible to the contagious accountability effect of BWC because they are the only ones aware of the camera in these interactions. Future studies should seek to answer this question by employing a quasi-experimental approach to BWC notification and testing for citizen's prior knowledge of BWC as well. Results from these future studies can have important implications in terms of BWC policy, training, citizen notification guidelines, and officer safety. At least within TPD, BWCs cannot have a civilizing effect on citizen behavior. This may present an issue if TPD's main goal with adopting BWCs is to ease police-community relations, as it is with many departments. BWCs have been linked to enhanced perceptions of procedural justice in the past, especially when citizens are aware of the cameras (Mastrofski et al., 2016; White, Todak, & Gaub, 2016; McClure et al., 2017). Then again, procedurally just treatment of citizens by police may trump the potential civilizing effect of BWCs. Nevertheless, departments seeking to repair or enhance their relationship to the community may consider mandatory activation and mandatory notification policies to achieve this effect.

Though the results of this study could not provide support for BWCs having a civilizing effect, there are still numerous benefits to BWC implementation. Looking at their evidentiary value, BWCs have been linked to increases in crime detection and guilty

pleas post-deployment (Malm, 2019). The extent to which BWCs are also used in training and the effect they have on training is unknown, but current research on that subject is promising and at the very least shows how easily BWCs can be incorporated into training (Lum et al., 2019). While research in these areas is less abundant or methodologically rigorous as one would hope, the results are still positive.

The narratives of cases in this study where citizens were aware of BWC provide an opportunity for officers to build strategies around notifying citizens of BWC. While calls in this current study were organized based on call type, McCluskey et al. (2017) included two dummy variables to account for call types (traffic stops or serious crimes) where officers may follow a type of script, as opposed to others where they may be more discrete in their decision-making. While officer scripts are commonly associated with procedural justice procedures, future SSO studies following this current study may benefit from taking note of if or when officers use scripts to de-escalate citizens. In the few interactions in the current study where notification occurred, it was presented as a way to assure citizens that their side of the story would be heard. In other cases, BWC notification was used as a way to quell outbursts at the onset of potentially volatile calls. So while we cannot definitively say that BWCs have a civilizing effect on citizen behavior because citizens are rarely aware of BWC, there may be potential for officers to use BWC as a tool to build initial trust with citizens and manage precarious interactions. This study should serve as a stepping stone for future researchers to more definitively determine the effect of BWC on citizen behavior.

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